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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

**Office Action Summary****Application No.**

09/401,875

**Applicant(s)**

ZEIGLER ET AL.

**Examiner**

KELLY CAMPEN

**Art Unit**

3691

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 June 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF-08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application.
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

### **DETAILED ACTION**

*The following is in response to the amendments filed with the RCE dated 6/3/2011. Claims 1-23 are pending. Claims 24-41 have been previously cancelled in the amendment filed 5/25/2004 and entered on 11/16/2004 when prosecution was reopened following an appeal brief being filed on 8/12/2004.*

#### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 6/3/2011 has been entered.

#### ***Claim Objections***

Claims 24-41 are objected to because of the following informalities: The claims lack the proper status identifier of "cancelled". Appropriate correction is required.

Claim 2 is objected to because of the following informalities: it appears there is a typographical error in line 6 " sending a message to render user interfaces render on displays of client system" does not make sense. Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-12 recite a process comprising the step of receiving. Based on Supreme Court precedent, a proper process must be tied to another statutory class or transform underlying subject matter to a different state or thing (*Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780,787-88 (1876)). Since neither of these requirements is met by the claim, the method is not considered a patent eligible process under 35 U.S.C. 101. To qualify as a statutory process, the claim should positively recite the other statutory class to which it is tied, for example by identifying the apparatus that accomplished the method steps or positively reciting the subject matter that is being transformed, for example by identifying the material that is being changed to a different state. The mere presence of a machine tie or transformation is not sufficient to pass the test. When a machine tie or transformation has

A mere field-of-use limitation is generally insufficient to render an otherwise ineligible method claim patent eligible. This means the machine or transformation must impose meaningful limits on the method claim's scope to pass the test. In addition, insignificant extra-solution activity will not transform an unpatentable principle into a patentable process. This means reciting a specific machine or a particular transformation of a specific article **in an**

**insignificant step, such as data gathering or outputting, is not sufficient to pass the test.** See *In re Bilski*, 545 F.3d 943, 88 USPQ2d 1385 (Fed. Cir. 2008).

In accordance with the M-or-T (machine or transformation) test, the claimed process must: (1) be tied to a particular machine or apparatus (machine implemented); or (2) particularly transform a particular article to a different state or thing. The mere presence of a machine tie or transformation **is not sufficient to pass the test**. When a machine tie or transformation has been identified, it must be further determined that the tie is to a particular machine or the particular transformation is of a particular article. Additionally, the particular machine tie or particular transformation must meet two corollaries to pass the test for subject matter eligibility. First, the use of the particular machine or transformation of the particular article must impose a meaningful limit on the claim's scope. So, a machine tie in only a field-of-use limitation would not be sufficient. Second, the use of the particular machine or the transformation of the particular article must involve more than insignificant "extra-solution" activity. If the machine or transformation is only present in a field-of-use limitation or in a step that is only insignificant "extra-solution" activity, the claim fails the M-or-T test, despite the presence of a machine or a transformation in the claim. Using the terms within the machine-or-transformation test: A "machine" is a concrete thing, consisting of parts, or of certain devices and combination of devices. This includes every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result. The machine should implement the process, **and not merely be an object upon which the process operates. The claim should be clear as to how the machine implements the process.** The machine limitations should make clear that the use of the machine in the claimed process imposes

a meaningful limitation on the claim's scope. "Transformation" of an article means that the "article" has changed to a different state or thing. Changing to a different state or thing usually means more than simply using an article or changing the location of an article. A new or different function or use can be evidence that an article has been transformed. Manufactures and compositions of matter are the result of transforming raw materials into something new with a different function or use. Purely mental processes in which thoughts or human based actions are "changed" are not considered an eligible transformation. For data, mathematical manipulation *per se* has not been deemed a transformation. A "particular" machine or apparatus or transformation of a "particular" article means that the method involves a specific machine or article, not any and all machines or articles. This ensures that the machine or transformation imposes real world limits on the claimed method by limiting the claim scope to a particular practical application. For computer implemented processes, the general purpose computer may be sufficiently "particular" when programmed to perform the process steps. **Such programming creates a new machine because a general purpose computer, in effect, becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software. To qualify as a particular machine under the test, the claim must clearly convey that the computer is programmed to perform the steps of the method because such programming, in effect, creates a special purpose computer limited to the use of the particularly claimed combination of elements (i.e., the programmed instructions) performing the particularly claimed combination of functions.** If the claim is so abstract and sweeping that performing the process as claimed would cover substantially all practical applications of a judicial exception, such as a mathematical

algorithm, the claim would not satisfy the test as the machine would not be sufficiently particular.

A "field-of-use" limitation does not impose actual boundaries on the scope of the claimed invention. A field-of-use limitation merely indicates that the method is for use in a particular environment, such as "for use with a machine" or "for transforming an article", which would not require that the machine implement the method or that the steps of the method cause the article to transform. A field-of-use limitation does not impose a meaningful limit on the claimed invention.

Insignificant "extra-solution" activity means activity that is not central to the purpose of the method invented by the applicant. For example, gathering data to use in the method when all applications of the method would require some form of data gathering would not impose a meaningful limit on the claim.

In the instant, the transformation is not adequate to pass the machine or transformation test because the device in the claim does not impose a meaningful limit on the claim's scope and appears to be moving information back and forth which the user could do by hand. Applicant should amend the claim to positively recite this relationship and transformation.

Claims 13-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture, or composition of matter are nonstatutory under 35 U.S.C. 101. Certain types of descriptive material, such as music, literature, art, photographs, and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture, or composition of matter. Nonfunctional descriptive

material may be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. 101.

Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components or statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.



Claims 20-23 are rejected as being directed to a signal wave. Specifically, the claims are directed to a computer readable medium which may encompass a signal wave. The United States Patent and Trademark Office (USPTO) is obliged to give claims their broadest reasonable interpretation consistent with the specification during proceedings before the USPTO. *See In re Zletz*, 893 F.2d 319 (Fed. Cir. 1989) (during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow). The broadest reasonable interpretation of a claim drawn to a computer readable medium (also called machine readable medium and other such variations) typically covers forms of non-transitory tangible media and transitory propagating signals *per se* in view of the ordinary and customary meaning of computer readable media, particularly when the specification is silent. *See* MPEP 2111.01. When the broadest reasonable interpretation of a claim covers a signal *per se*, the claim must be rejected under 35 U.S.C. § 101 as covering non-statutory subject matter. *See In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not directed to statutory subject matter) and *Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. § 101*, Aug. 24, 2009; p. 2.

The USPTO recognizes that applicants may have claims directed to computer readable media that cover signals *per se*, which the USPTO must reject under 35 U.S.C. § 101 as covering both non-statutory subject matter and statutory subject matter. In an effort to assist the patent community in overcoming a rejection or potential rejection under 35 U.S.C. § 101 in this situation, the USPTO suggests the following approach. A claim drawn to such a computer readable medium that covers both transitory and non-transitory embodiments may be amended to narrow the claim to cover only statutory embodiments to avoid a rejection under 35 USC § 101

by adding the limitation "non-transitory" to the claim. *Cf Animals - Patentability*, 1077 *Off. Gaz. Pat. Office* 24 (April 21, 1987) (suggesting that applicants add the limitation "non-human" to a claim covering a multicellular organism to avoid a rejection under 35 U.S.C. § 101). Such an amendment would typically not raise the issue of new matter, even when the specification is silent because the broadest reasonable interpretation relies on the ordinary and customary meaning that includes signals *per se*. The limited situations in which such an amendment could raise issues of new matter occur, for example, when the specification does not support a non-transitory embodiment because a signal *per se* is the only viable embodiment such that the amended claim is impermissibly broadened beyond the supporting disclosure. *See, e.g., Gentry Gallery, Inc. v. Berkline Corp.*, 134F.3d 1473 (Fed. Cir. 1998).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Guterman et al. (WO 91/14231).

Specifically as to claim 1, Guterman et al. disclose a method, executed in a computer server system of an electronic market, for managing quotes for a security, the method comprising: receiving by the server computer system from client systems used by market participants, quotes, the quotes including fields to indicate whether the quote is to bid or offer a security, a first size value that indicates a displayable, attributable size amount of the quote and a

second size value that indicates an additional quote size, that is displayable on displays of client systems, as trading interest in a security, but not attributable to any market participant (see page 1, paragraphs 1 and 3; page 6, paragraphs 3 through page 7 paragraph 4 and page 9 paragraph 5 through paragraph 2 on page 11, and pages 14-16).

Specifically as to claim 2, calculating by the server computer system, a total size of quotes at a particular price level by; determining a total displayable, non-attributable size of the quotes received from client systems displayable quotes; and sending a message to render user interfaces render on displays of client systems, the portion of the received quotes having the first size value as attributable size amounts of the quotes of corresponding ones of the market participants, see above rejection for claim 1, in addition, see pages 14- 16.

Specifically as to claim 3, receiving, by the server computer system, quotes from client systems that are reserve quotes, which are neither displayable quotes nor attributable to market participants, but are available as trading liquidity in the security (see page 16, paragraph 1 and 2 and page 17.)

Specifically as to claim 4, sending, by the server computer system, a message to display the total displayable, non-attributable quote sizes as displayable quotes without displaying identifications of the market participants form which the non-attributable quote sizes were received (page 22).

Specifically as to claim 5, determining, by the server computer system, the total quote sizes by adding the first and second size values for the received quotes and at each of a plurality of corresponding price levels to provide the total displayable quote sizes for each of the corresponding price levels; causing displays of client systems to render in a user interface the

total of displayable quote sizes in a first region of as separate entries for both bid and offer for each of a plurality of different price levels provided in a quote montage (see fig 3a, page 23-24).

Specifically as to claim 6, adding, by the server computer system, liked-priced quotes of the displayable and additional aggregate quote type together to provide a total aggregate quote (see pages 23-24 and figure 5 and 6).

Specifically as to claim 7, causing displays of client systems, to render the attributable quotes as individual lines in a current quote window with market participant identifiers adjacent the quotes to attribute the quotes; and causing the displays of client systems to render the displayable, non attributable size of the quotes as single entry for each of price levels ( see pages 23-24 and figures 3a, 5 and 6).

Specifically as to claim 8, determining, by the server computer system, if the additional aggregate quotes and displayable quotes are proprietary or agency quotes; determining, by the server computer system, a total of all agency quotes and proprietary quotes; and causing displays of client systems to render a total of all agency quotes and to render in a separate area of a montage a total of all displayable quotes, as the total agency quotes and proprietary quotes (see page 24).

Specifically as to claim 9, determining, by the server computer system, if the quote only has a displayable attributable or displayable non attributable quote size; adding, by the server computer system, the size of quote to corresponding sizes of other quotes at corresponding price levels; causing displays of client systems to render in a first portion of a quote montage, the quote, if the quote is displayable and attributable, and in a different portion of the montage a total displayable quote size ( see figures 3a, 4-6 and pages 23-26).

Specifically as to claim 10, receiving, by the server computer system, a reserve quote (see page 14).

Specifically as to claim 11, receiving, by the server computer system, an order produced when a user selects in the user interface one of the received quotes with the first size value; and executing, by the server computer system, the order against a quote stored in the server computer system with the order executed against the quote (see page 14).

Specifically as to claim 12, receiving, by the server computer system, an order produced when a user selects in one of the user interfaces one of the separate entries at one of the price levels; and executing, by the server computer system, the order against quotes and reserve quotes corresponding to the one of the separate entries in the user interface (see pages 14-16). Specifically as to claim 13, Gutterman et al. disclose an electronic market for trading of securities, the market comprising: a plurality of client systems for entering quotes the quotes including fields to indicate whether the quote is to bid or offer a security, a first size value that indicates a displayable, attributable size amount of the quote an a second size value, with the first size values of quotes being quotes that are displayable and attributable to a specific market participant and the second size values being quotes that are displayable but not attributable to a specific market participant; and a server computer system configured to: receive the quotes from the client systems, calculate a size of first quote sizes of the received quotes and cause totals of the first and second size values of the quotes to be displayed on the client system as values in corresponding one of a plurality of price levels; and cause quotes having a first size value to be displayed on display if the client system as individual quotes with the first size value for each quote with a market participant identifier on the client systems, see abstract and page 1,

paragraphs 1 and 3; page 6, paragraphs 3 through page 7 paragraph 4 and page 9 paragraph 5 through paragraph 2 on page 11, and pages 14-16.

Specifically as to claims 14, a reserve quote size that are reserve quotes that are neither displayable nor attributable to a specific market participant (see above rejection for claim 13, in addition, see pages 14- 16).

Specifically as to claims 15, wherein the user interface includes a montage for displaying the second size values of quotes at multiple price levels on either side of the market (see above rejection for claim 13, in addition see figures 5-6 and page 23).

Specifically as to claims 16, wherein the totals for the first and second size values for quotes are displayed on the displays in a graphical user interface comprising fields for proprietary interest and agency interest according to type of quote (see figures 3a, 4-6 and pages 23-26).

Specifically as to claims 17, a graphical user interface that includes a current quote montage disposed adjacent to a montage to display second size values (see above rejection for claim 13, in addition see figures 5-6 and page 23).

Specifically as to claims 18 and 20, Gutterman et al. disclose a client system (and related computer program product) for entering quotes for securities, the client station comprising: a display rendering a graphical user interface at which quotes can be entered at a price level, said graphical user interface comprising fields to enter a quote having a first size value that indicates a displayable, attributable size amount of the quote displayable and attributable to a specific market participant and a second field for entering a second size value that indicates an additional

quote size that is displayable but not attributable to a specific market participant, see abstract and pages 1-11, page 23 and 26).

Specifically as to claim 19, wherein the graphical user interface comprises a third field for entering a third size value that indicates a reserve quote being neither displayable nor attributable to a specific market participant (see above rejection and citations for claims 18 and 15).

Specifically as to claims 21, render a current quote portion disposed adjacent the first portion of the GUI (see figures 5-6).

Specifically as to claims 22, current quote window to display displayable quotes of participants in the system (see figures 4 and 5-6).

Specifically as to claims 23, a current quote window listing the displayable, attributable quotes ordered according to prices as a list of bid quotes and a separate list of offer quotes disposed adjacent the first portion of the GUI (see fig. 4 and figs. 5-8).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KELLY CAMPEN whose telephone number is (571)272-6740. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on (571) 272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kelly Campen/  
Primary Examiner, Art Unit 3691